Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

PTAGIS - Development of Large PIT-Tag Antennas to Estimate Migration Timing and Survival for Adult Salmonids near Pile Dikes in the Columbia River Estuary

1.2. Summary description of the data:

We continued research and development of a passive PIT-tag detection system along a pile dike in the estuary (rkm 70). Target fish for this system are returning adult salmonids, whose detection in the mid-estuary can be compared with subsequent detections at upstream dams to determine timing and survival during the adult migration. In 2013 we changed all system

electronics from the MUX used in 2011 and 2012 to the MTS transceiver. This system upgrade allowed us to quadruple the size of antennas, and thus fish passage openings, to an area of 2.4 6.1 m. In March, we installed three new antennas encased in a rigid PVC housing (10 cm diameter) onto the pile dike system (PTAGIS site code PD7). One of these eventually leaked, and we replaced it in July using an antenna with an experimental housing. The new housing was smaller in diameter (19 mm) and made of flexible PVC hose. We expanded the system with 2 additional antennas placed further inshore along the pile dike (5 total). Except for interruptions to replace antennas and a few brief interruptions in late fall due to solar power shortage; the new system has remained operational from March through October 2013.

In 2013, we detected 375 adult and jack salmonids including 96 spring Chinook, 104 summer Chinook, 106 fall Chinook, 54 steelhead, 12 sockeye, and 3 coho salmon. We also detected 612 juvenile salmonids, 5 sturgeon, 1 pikeminnow, and 32 fish with PIT tags yet to be identified in PTAGIS. Survival estimates (SE) of adults to passage over Bonneville Dam were 90.5% (15%), 88.2% (8%), 92.1% (5%), and 90.7 (8%), respectively for spring, summer, and fall Chinook salmon and steelhead. Median travel times from detection at PD7 to Bonneville Dam for the same fish groups were 4.0d, 3.7d, 3.2d and 4. 6d.

Stationary PIT-tag antennas are used to interrogate PIT-tagged fish throughout the Columbia River hydrosystem and in streams to evaluate fish passage and survival for both juvenile and adult fish. Pile dikes are common in the estuary and in some areas

located less than 0.5 kms apart and can be a substantial obstacle for migrating fish along the shoreline. Fishermen often utilize the area near pile dikes to target adult fish believing they become more concentrated as they circumvent the outermost piling during their upstream migration. This strategy was similar to that used in the late 19th and early 20th centuries by designers of effective fish wheel leads utilized with great success until banned. Estuary PIT-tag data obtained with a pair-trawl characteristically shows an increase in detection rate of juvenile fish when passing just outside of these pile dikes. In fall 2011 and continuing through fall 2012, we deployed a 4 to 6-coil configuration of detection antennas using an industry standard MUX transceiver system (site code PD7 in PTAGIS). Fish passage openings were limited to 4X10 with the MUX but we created a matrix of coils spanning 8.5 X 20 in water 20 deep. In 2013, we adapted a Bata version of a new IS1001 transceiver system and deployed antennas with individual coils as large as 10X 20 in the same location. We propose continued deployment of stationary PIT-tag antennas on representative pile dikes to evaluate the potential of establishing a network of stationary monitoring sites in the estuary for long-term data collection. A proto-type Pile Dike Antenna (PDA) system deployed near river kilometer 70 since 2011 has enabled collection of limited timing and species composition data for adult salmonids (primary target) entering the estuary and juvenile salmonids (secondary target) exiting the estuary. Expansion of such antenna systems to passively sample passing fish at various fixed locations in the estuary enable calculation of survival rates to Bonneville Dam for adult salmonids to better evaluate impacts by marine mammals. PDAs would potentially provide full year detection capability for both adult and juvenile salmonids in the estuary. .

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2011-07-15 to 2014-12-31, 2011-07-15 to 2014-12-31, 2011-07-15 to 2014-12-31, 2011-07-15 to 2014-12-31

1.5. Actual or planned geographic coverage of the data:

W: -123.3298, E: -123.3298, N: 46.1384, S: 46.1384
Jones Beach: Jones Beach Field office and shop

W: -123.3795, E: -123.3795, N: 46.1386, S: 46.1386
Kerry West: Kerry West Marina and storage area

W: -123.3804, E: -123.3804, N: 46.1456, S: 46.1456
PD7: PD7 pile dike sample location

W: -123.9474, E: -123.9474, N: 46.1995, S: 46.1995
Pt Adams: Shop facilities and main office

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

Table (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)
Instrument: Unknown Instrument
Platform: Water based Platforms - Watercraft - Manned Watercraft - Vessel (Ship) - Fishery Research Vessels - ZO - 15.0.0
Physical Collection / Fishing Gear: Unknown Physical Collection Device

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
Metadata Contact

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:
Northwest Fisheries Science Center

2.4. E-mail address:
nmfs.nwfsc.metadata@noaa.gov

2.5. Phone number:
(206) 860-3433

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
Paul Bentley

3.2. Title:
Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?
Yes

4.2. Approximate percentage of the budget for these data devoted to data management (

specify percentage or "unknown"):

25%

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Lineage Statement:
Weekly uploads of pile dike tag data to PTAGIS. Downloads of system wide interrogation data from PTAGIS

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

Databases are maintained locally and routinely compared to PTAGIS for verification and QAQC. These data were collected and processed in accordance with established protocols and best practices under the direction of the projects Principal Investigator. Contact the dataset Data Manager for full QA/QC methodology.

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

Yes

6.1.1. If metadata are non-existent or non-compliant, please explain:

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

https://inport.nmfs.noaa.gov/inport/item/30855

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation

Procedural Directive: https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

Northwest Fisheries Science Center

7.2.1. If data hosting service is needed, please indicate:

No

7.2.2. URL of data access service, if known:

http://www.ptagis.org/

7.3. Data access methods or services offered:

http://www.ptagis.org/

7.4. Approximate delay between data collection and dissemination:

7 days

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

No Delay

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To

Be Determined, Unable to Archive, or No Archiving Intended)
Other

8.1.1. If World Data Center or Other, specify:
Pacific States Marine Fish Commision

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Northwest Fisheries Science Center - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:
refer to PTAGIS bylaws http://www.ptagis.org/ days

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection
refer to PTAGIS bylaws http://www.ptagis.org/

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.